

RT² Profiler PCR Array (96-Well Format and 384-Well [4 x 96] Format)

Rat miR-181 Targets

Cat. no. 330231 PARN-6011ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array, Format A	Applied Biosystems® models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well block); Bio-Rad® models iCycler®, iQ™ 5, MyiQ™, MyiQ2; Bio-Rad/MJ Research Chromo4™; Eppendorf® Mastercycler® ep realplex models 2, 2s, 4, 4s; Stratagene® models Mx3005P®, Mx3000P®; Takara TP-800
RT ² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT ² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT ² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT ² Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT ² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT ² Profiler PCR Array, Format H	Fluidigm® BioMark™



Sample & Assay Technologies

Description

The Rat miR-181 Targets RT² Profiler PCR Array profiles the expression of 84 rno-miR-181a-5p target genes. This panel of 84 genes includes currently known experimentally verified plus bioinformatically predicted target genes regulated by rno-miR-181a-5p. This array also includes target genes regulated by other miRNAs that have the same seed sequence as rno-miR-181a-5p, including rno-miR-181b-5p, rno-miR-181c-5p, and rno-miR-181d. miRNA target gene expression analysis provides further insight into the function of these specific miRNAs. A set of controls present on each array enables data analysis using the $\Delta\Delta CT$ method of relative quantification as well as assessment of reverse transcription performance, genomic DNA contamination, and PCR performance. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes likely to be regulated by miR-181 with this array.

For further details, consult the *RT² Profiler PCR Array Handbook*.

Shipping and storage

RT² Profiler PCR Arrays in formats A, C, D, E, F, and G are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products. RT² Profiler PCR Arrays in format H are shipped on dry ice or blue ice packs.

For long term storage, keep plates at -20°C .

Note: Ensure that you have the correct RT² Profiler PCR Array format for your real-time cycler (see table above).

Note: Open the package and store the products appropriately immediately on receipt.

Array layout (96-well)

For 384-well 4 x 96 PCR arrays, genes are present in a staggered format. Refer to the *RT² Profiler PCR Array Handbook* for layout.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Acvr2a	Adarb1	Adcy1	Aicda	Atg5	Atm	Bcl2	Bcl2l11	Bdnf	Bmpr2	Casp3	Cblb
B	Cbx7	Cd69	Cdkn1b	Cdx2	Cops2	Cpne2	Cxcr3	Cyld	Ddit4	Disc1	Dusp5	Dusp6
C	Eif4a2	Enkur	Etv6	Fbxl3	Fkbp1a	Fos	Gabra1	Gata6	Gls	Gria1	Gria2	Grik1
D	Hipk2	Hk2	Hmgb2	Igf1r	Il1a	Kank1	Kcna4	Klhl2	Kras	Lmbrd2	Lrba	Map1b
E	Map3k10	Med8	Mgmt	Narf	Nlk	Nmt2	Notch4	Npepps	Otd4	Pcaf	Plag1	Plau
F	Plcl2	Prkcd	Prox1	Ptpn11	Ptpn22	Rala	Rbbp7	RGD1308706	RGD1309310	Rlf	Rnf2	Sirt1
G	Slc2a1	Stat1	Tanc2	Tbpl1	Tcerg1	Tcl1a	Tmem131	Vsnl1	Ythdc1	Zfp180	Zfp361l	Zfp361z
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.161783	NM_031571	Acvr2a	Activin A receptor, type IIA
A02	Rn.89675	NM_012894	Adarb1	Adenosine deaminase, RNA-specific, B1
A03	Rn.214145	NM_001107239	Adcy1	Adenylate cyclase 1 (brain)
A04	Rn.118188	NM_001100779	Aicda	Activation-induced cytidine deaminase
A05	Rn.98385	NM_001014250	Atg5	ATG5 autophagy related 5 homolog (S. cerevisiae)
A06	Rn.214048	NM_001106821	Atm	Ataxia telangiectasia mutated homolog (human)
A07	Rn.9996	NM_016993	Bcl2	B-cell CLL/lymphoma 2
A08	Rn.82709	NM_022612	Bcl2l11	BCL2-like 11 (apoptosis facilitator)
A09	Rn.11266	NM_012513	Bdnf	Brain-derived neurotrophic factor
A10	Rn.59276	NM_080407	Bmpr2	Bone morphogenetic protein receptor, type II (serine/threonine kinase)
A11	Rn.10562	NM_012922	Casp3	Caspase 3
A12	Rn.21799	NM_133601	Cblb	Cas-Br-M (murine) ecotropic retroviral transforming sequence b
B01	Rn.12512	NM_199117	Cbx7	Chromobox homolog 7
B02	Rn.23779	NM_134327	Cd69	Cd69 molecule
B03	Rn.29897	NM_031762	Cdkn1b	Cyclin-dependent kinase inhibitor 1B
B04	Rn.64495	NM_023963	Cdx2	Caudal type homeo box 2
B05	Rn.11556	NM_153297	Cops2	COP9 constitutive photomorphogenic homolog subunit 2 (Arabidopsis)
B06	Rn.199055	XM_214630	Cpne2	Copine II
B07	Rn.24787	NM_053415	Cxcr3	Chemokine (C-X-C motif) receptor 3
B08	Rn.128760	NM_001017380	Cyld	Cylindromatosis (turban tumor syndrome)
B09	Rn.9775	NM_080906	Ddit4	DNA-damage-inducible transcript 4
B10	Rn.214038	NM_175596	Disc1	Disrupted in schizophrenia 1
B11	Rn.10877	NM_133578	Dusp5	Dual specificity phosphatase 5
B12	Rn.4313	NM_053883	Dusp6	Dual specificity phosphatase 6
C01	Rn.143972	NM_001008335	Eif4a2	Eukaryotic translation initiation factor 4A, isoform 2
C02	Rn.108727	NM_001106126	Enkur	Enkurin, TRPC channel interacting protein
C03	Rn.147424	NM_001037353	Etv6	Ets variant 6
C04	Rn.36356	NM_001100568	Fbxl3	F-box and leucine-rich repeat protein 3
C05	Rn.80611	NM_013102	Fkbp1a	FK506 binding protein 1a
C06	Rn.103750	NM_022197	Fos	FBJ osteosarcoma oncogene
C07	Rn.28463	NM_183326	Gabra1	Gamma-aminobutyric acid (GABA) A receptor, alpha 1
C08	Rn.8701	NM_019185	Gata6	GATA binding protein 6
C09	Rn.5762	NM_012569	Gls	Glutaminase
C10	Rn.29971	NM_031608	Gria1	Glutamate receptor, ionotropic, AMPA 1
C11	Rn.91361	NM_017261	Gria2	Glutamate receptor, ionotropic, AMPA 2
C12	Rn.10449	NM_017241	Grik1	Glutamate receptor, ionotropic, kainate 1
D01	Rn.8042	NM_001108622	Hipk2	Homeodomain interacting protein kinase 2
D02	Rn.91375	NM_012735	Hk2	Hexokinase 2
D03	Rn.2874	NM_017187	Hmgb2	High mobility group box 2
D04	Rn.10957	NM_052807	Igf1r	Insulin-like growth factor 1 receptor
D05	Rn.12300	NM_017019	Il1a	Interleukin 1 alpha
D06	Rn.86207	NM_001037197	Kank1	KN motif and ankyrin repeat domains 1
D07	Rn.207159	NM_012971	Kcna4	Potassium voltage-gated channel, shaker-related subfamily, member 4
D08	Rn.11786	XM_214331	Klhl2	Kelch-like 2, Mayven (Drosophila)
D09	Rn.24554	NM_031515	Kras	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog

Position	UniGene	GenBank	Symbol	Description
D10	Rn.161786	XM_001057334	Lmbrd2	LMBR1 domain containing 2
D11	Rn.2120	NM_001108555	Lrba	LPS-responsive vesicle trafficking, beach and anchor containing
D12	Rn.98152	NM_019217	Map1b	Microtubule-associated protein 1b
E01	Rn.130504	XM_218368	Map3k10	Mitogen activated protein kinase kinase kinase 10
E02	Rn.102063	NM_001108673	Med8	Mediator complex subunit 8
E03	Rn.9836	NM_012861	Mgmt	O-6-methylguanine-DNA methyltransferase
E04	Rn.162225	NM_001039207	Narf	Nuclear prelamin A recognition factor
E05	Rn.113514	NM_001191924	Nlk	Nemo like kinase
E06	Rn.162255	NM_207590	Nmt2	N-myristoyltransferase 2
E07	Rn.12967	NM_001002827	Notch4	Notch homolog 4 (Drosophila)
E08	Rn.12214	NM_080395	Npepps	Aminopeptidase puromycin sensitive
E09	Rn.22342	XM_226388	Otud4	OTU domain containing 4
E10	Rn.4126	NM_001024252	Pcaf	P300/CBP-associated factor
E11	Rn.39161	NM_001008316	Plag1	Pleiomorphic adenoma gene 1
E12	Rn.6064	NM_013085	Plau	Plasminogen activator, urokinase
F01	Rn.204118	NM_001106880	Plcl2	Phospholipase C-like 2
F02	Rn.98279	NM_133307	Prkcd	Protein kinase C, delta
F03	Rn.26557	NM_001107201	Prox1	Prospero homeobox 1
F04	Rn.98209	NM_013088	Ptpn11	Protein tyrosine phosphatase, non-receptor type 11
F05	Rn.22891	NM_001106460	Ptpn22	Protein tyrosine phosphatase, non-receptor type 22 (lymphoid)
F06	Rn.100380	NM_031093	Rala	V-ral simian leukemia viral oncogene homolog A (ras related)
F07	Rn.3600	NM_031816	Rbbp7	Retinoblastoma binding protein 7
F08	Rn.12969	NM_001134421	RGD130870 6	Similar to RIKEN cDNA 4921524J17
F09	Rn.198902	XR_085974	RGD130931 0	Similar to mKIAA0195 protein
F10	Rn.50631	XM_233485	Rlf	Rearranged L-myc fusion
F11	Rn.19719	NM_001025667	Rnf2	Ring finger protein 2
F12	Rn.219976	NM_001107627	Sirt1	Sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae)
G01	Rn.3205	NM_138827	Slc2a1	Solute carrier family 2 (facilitated glucose transporter), member 1
G02	Rn.33229	NM_032612	Stat1	Signal transducer and activator of transcription 1
G03	Rn.34588	NM_001191653	Tanc2	Tetratricopeptide repeat, ankyrin repeat and coiled-coil containing 2
G04	Rn.25148	NM_001127201	Tbpl1	TATA box binding protein-like 1
G05	Rn.18770	NM_001107390	Tcerg1	Transcription elongation regulator 1
G06	Rn.218634	NM_001109601	Tcl1a	T-cell leukemia/lymphoma 1A
G07	Rn.63731	XM_237056	Tmem131	Transmembrane protein 131
G08	Rn.105934	NM_012686	Vsnl1	Visinin-like 1
G09	Rn.48752	NM_133423	Ythdc1	YTH domain containing 1
G10	Rn.14669	NM_144757	Zfp180	Zinc finger protein 180
G11	Rn.6142	NM_017172	Zfp361l	Zinc finger protein 36, C3H type-like 1
G12	Rn.22055	NM_001036626	Zfp361l2	Zinc finger protein 36, C3H type-like 2
H01	Rn.94978	NM_031144	Actb	Actin, beta
H02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
H03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
H04	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
H05	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
H06	N/A	U26919	RGDC	Rat Genomic DNA Contamination
H07	N/A	SA_00104	RTC	Reverse Transcription Control
H08	N/A	SA_00104	RTC	Reverse Transcription Control
H09	N/A	SA_00104	RTC	Reverse Transcription Control
H10	N/A	SA_00103	PPC	Positive PCR Control
H11	N/A	SA_00103	PPC	Positive PCR Control
H12	N/A	SA_00103	PPC	Positive PCR Control

Related products

For optimal performance, RT² Profiler PCR Arrays should be used together with the RT² First Strand Kit for cDNA synthesis and RT² SYBR[®] Green qPCR Mastermixes for PCR.

Product	Contents	Cat. no.
RT ² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT ² SYBR Green qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with real-time cyclers that do not require a reference dye, including: Bio-Rad models CFX96, CFX384, DNA Engine Opticon 2; Bio-Rad/MJ Research Chromo4; Roche LightCycler 480 (96-well and 384-well); all other cyclers	330500
RT ² SYBR Green ROX [™] qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Applied Biosystems models 5700, 7000, 7300, 7500 [Standard and FAST], 7700, 7900HT 96-well block [Standard and FAST] and 384-well block, StepOnePlus; Eppendorf Mastercycler ep realplex models 2, 2S, 4, 4S; Stratagene models Mx3000P, Mx3005P, Mx4000; Takara TP-800	330520
RT ² SYBR Green Fluor qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Bio-Rad models iCycler, iQ5, MyiQ, MyiQ2	330510

* Larger kit sizes available; please inquire.

RT² Profiler PCR Array products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

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